

Title (en)

GAS HUMIDITY REDUCTION APPARATUS AND METHOD OF USING THE SAME

Title (de)

VORRICHTUNG ZUR REDUKTION VON GASFEUCHTIGKEIT UND VERFAHREN ZUR VERWENDUNG DAVON

Title (fr)

APPAREIL DE RÉDUCTION DE L'HUMIDITÉ DE GAZ ET SON PROCÉDÉ D'UTILISATION

Publication

**EP 3761026 A1 20210106 (EN)**

Application

**EP 20183568 A 20200701**

Priority

CN 201910598987 A 20190704

Abstract (en)

A humidity reduction apparatus and a method for reducing the humidity of a volume of gas. The humidity reduction apparatus comprises a gas delivery conduit, at least one heat-conductive media (e.g. a porous copper material) positioned in-line within at least a portion of the gas delivery conduit, and a cooler (perfable a thermoelectric cooler) in contact with at least a portion of the gas delivery conduit to cool the gas delivery conduit and the at least one heat-conductive media. The gas delivery conduit comprises at least one conducting portion. The first side of the cooler is configured to cool the at least one conducting portion of the gas delivery conduit and the at least one heat-conductive media. The voltage applied across the cooler is selectively reversed such that the first side heats the at least one conducting portion of the gas delivery conduit and the at least one heat-conductive media, wherein the at least one conducting portion is fluidly connected to preferably positioned upstream of a photoionization detector.

IPC 8 full level

**G01N 33/00** (2006.01); **G01N 27/68** (2006.01)

CPC (source: CN EP US)

**F24F 3/147** (2013.01 - US); **F24F 12/006** (2013.01 - US); **F25B 21/00** (2013.01 - CN); **G01N 27/66** (2013.01 - CN); **G01N 33/0004** (2013.01 - CN);  
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**G01N 33/006** (2013.01 - EP)

Citation (search report)

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- [XI] US 4231256 A 19801104 - CHAPMAN ROBERT L, et al
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Designated contracting state (EPC)

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Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

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US 2021003297 A1 20210107

DOCDB simple family (application)

**EP 20183568 A 20200701**; CA 3085194 A 20200630; CN 201910598987 A 20190704; US 202016916304 A 20200630